### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 24 November 2005 (24.11.2005)

**PCT** 

# (10) International Publication Number WO 2005/112084 A1

(51) International Patent Classification<sup>7</sup>: H01L 21/205

(21) International Application Number:

PCT/KR2005/001444

(22) International Filing Date: 17 May 2005 (17.05.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

10-2004-0035025 18 May 2004 (18.05.2004) KR 10-2004-0035024 18 May 2004 (18.05.2004) KR

(71) Applicant (for all designated States except US): MECHA-RONICS CO., LTD. [KR/KR]; 599-15, Jisan-dong, Pyeongtaek-City, Gyeonggi-do 459-110 (KR).

(72) Inventors; and

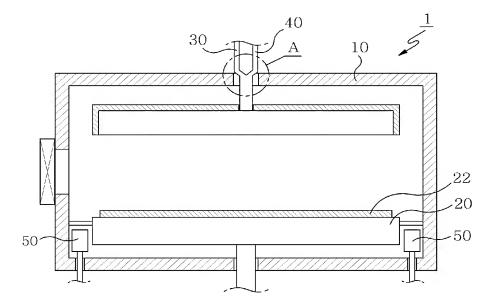
(75) Inventors/Applicants (for US only): JANG, Hyuk-Kyoo [KR/KR]; 901-1212, Chungsol Maeul, Keumgok-dong,

Bundang-gu, Seongnam City, Gyeonggi-do 463-480 (KR). **KIM**, **Hyun-Chang** [KR/KR]; 106-501, Kun Young Apt., Jisan-dong, Pyeongtaek-City, Gyeonggi-do 459-747 (KR).

- (74) Agent: KIM, Inhan; Room 901, Doorea Bldg., 24,, Yeouidong,, Yeongdeungpo-gu, Seoul 150-877 (KR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

[Continued on next page]

(54) Title: METHOD FOR FORMING ORGANIC LIGHT-EMITTING LAYER



(57) Abstract: Disclosed herein is a method for forming a light-emitting layer on an industrial scale via chemical vapor deposition or molecular layer deposition. According to the method, a metal-containing material and an 8-hydroxyquinoline derivative having stable vapor pressure characteristics are used as raw materials and are vaporized.

# WO 2005/112084 A1



SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

### Published:

with international search report